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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Hideto Noguchi

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EXAMINER

DANG, HUNG Q

ART UNIT

PAPER NUMBER

2621

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/092,923	Applicant(s) NOGUCHI, HIDETO	
	Examiner HUNG Q. DANG	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/31/2007 has been entered.

Response to Arguments

Applicant's arguments filed on 10/31/2007 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 4-5, 7, and 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komoda et al. (US Patent 6,701,063), Kikuchi et al. (US Patent 6,553,180), and Nakajima et al. (US Patent 7,260,305).

Claim 1 recites an optical disk recording apparatus, comprising: (1) recording module to record at least image data on an optical disk medium; and (2) thumbnail generating module to generate, for each partial recording section of image data to be

recorded on said optical disk medium, thumbnail data of a particular image associated with the partial recording section, the thumbnail data being recorded on said optical disk medium by said recording means, wherein: (3) when a particular operation is conducted, the particular image is read for each of the partial recording sections; (4) said thumbnail generating module generates thumbnail data for the particular image read for said each partial recording section; (5) said recording module records the thumbnail data of a plurality of images in the form of a string of data; and (6) a module to determine a type of said optical disk medium and to change the processing to generate and to record thumbnail data in association with the recording of the image in accordance with the determined type of optical disk medium.

Komoda et al. teach a video disc recorder/player, comprising: (1) recording module to record at least image data on an optical disk medium (column 2, lines 14-25; column 4, lines 39-44); and (2) thumbnail generating module to generate, for each partial recording section of image data to be recorded on said optical disk medium, thumbnail data of a particular image associated with the partial recording section, the thumbnail data being recorded on said optical disk medium by said recording means (column 4, lines 1-3, 30-32, 51-53, 64-66), wherein: (3) when a particular operation is conducted, the particular image is read for each of the partial recording sections (column 6, lines 25-42); (4) said thumbnail generating module generates thumbnail data for the particular image read for said each partial recording section (column 4, lines 1-3, 30-32, 51-53, 64-66); (5) said recording module recording the thumbnail data of a plurality of images (column 4, lines 33-36).

Claim 7 recites an optical disk recording method, comprising the steps of: (1) determining a type of an optical disk medium from among a plurality of types of optical disk media; (2) recording at least image data on the optical disk medium; (3) generating, for each partial recording section of the image data, thumbnail data of a particular image associated with the partial recording section and recording the thumbnail data; (4) reading, when a particular operation is conducted, the particular image for each of the partial recording sections; (5) generating thumbnail data for the particular image read; and (6) recording the thumbnail data of a plurality of images in the form of a string of data on the optical disk medium; wherein (7) at least one of the thumbnail data generating and recording steps comprises a process selected from among a plurality of different processes, in response to the determined type of optical disk medium.

Komoda et al. also teach an optical disk recording method, comprising the steps of: (1) recording at least image data on an optical disk medium (column 2, lines 14-25; column 4, lines 39-44); (2) generating, for each partial recording section of the image data, thumbnail data of a particular image associated with the partial recording section and recording the thumbnail data (column 4, lines 1-3, 30-32, 51-53, 64-66); (3) reading, when a particular operation is conducted, the particular image for each of the partial recording sections (column 4, lines 31-33); (4) generating thumbnail data for the particular image read (column 4, lines 31-33); and (5) recording the thumbnail data of a plurality of images (column 4, lines 34-37).

Komoda et al. do not teach the thumbnail data of a plurality of images to be recorded as string of data. Komoda et al. also do not teach a module or step to

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determine a type of said optical disk medium and to change or select the processing to generate and to record thumbnail data in association with the recording of the image in accordance with the determined type of optical disk medium.

Kikuchi et al. teach a digital information recording and playback system and digital information recording medium in which the thumbnail data of a plurality of images are taught to be recorded as string of data (column 30, lines 51-67; column 31, lines 1-2).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the concept of the thumbnail data of a plurality of images being recorded as string of data taught by Kikuchi et al. into the video disc recorder/player and method taught by Komoda et al. because, according to Kikuchi et al., doing such would make searching and displaying the thumbnails have shorter access time or faster (column 30, lines 55-62).

The proposed combination of Komoda et al. and Kikuchi et al. further discloses a module or step to determine the type of the optical disk (Kikuchi, column 33, lines 63-67; column 12, lines 49-54; column 9, lines 47-54; column 13, lines 19-21) while Komoda et al. teach changing or selecting the processing to generate and to record thumbnail data in association with video data of different resolutions (column 4, lines 46-53, 60-66; Fig. 3; and Fig. 4). But the proposed combination of Komoda et al. and Kikuchi et al. does not discloses a module or a step to determine a type of said optical disk medium and to change or select the processing to generate and to record

thumbnail data in association with the recording of the image in accordance with the determined type of optical disk medium.

Nakajima et al. disclose a module to determine a type of said optical disk medium and to change the processing to generate and to record thumbnail data in association with the recording of the image in accordance with the determined type of optical disk medium (column 7, lines 40-45).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the module to determine a type of said optical disk medium and to change the processing to generate and to record thumbnail data in association with the recording of the image in accordance with the determined type of optical disk medium disclosed by Nakajima into the apparatus and method taught by Komoda et al. and Kikuchi et al. in order to automatically label the disk without user's intervention, thus, to enhance its user interface.

Claims 4 and 10 recite an optical disk recording apparatus capable of recording data on a plurality of types of optical disk media and a recording method; comprising: (1) recording module and step to record at least image data on an optical disk medium or on a plurality of optical disk media of a plurality of different types; (2) thumbnail generating module and step to generate, for each partial recording section of image data to be recorded on said optical disk medium, thumbnail data of a particular image associated with the partial recording section, the thumbnail data being recorded on said optical disk medium by said recording means; and (3) a module and step to determine a type of said optical disk medium and to change the processing to generate and to

record thumbnail data in association with the recording of the image in accordance with the determined type of optical disk medium.

Komoda et al. teach a video disc recorder/player and recording method, comprising: (1) recording module and step to record at least image data on an optical disk medium (column 2, lines 14-25; column 4, lines 39-44) or on a plurality of optical disk media of a plurality of different types (column 2, lines 9-14); (2) thumbnail generating module and step to generate, for each partial recording section of image data to be recorded on said optical disk medium, thumbnail data of a particular image associated with the partial recording section, the thumbnail data being recorded on said optical disk medium by said recording means (column 4, lines 1-3, 30-32, 51-53, 64-66); and (3) means and step for changing the processing to generate and to record thumbnail data in association with the recording of the image corresponding to a high-resolution (column 4, lines 46-53) and standard DVD (column 4, 60-66) formats.

Komoda et al. do not teach the means and step to determine the type of the optical disk medium.

Kikuchi et al. teach the module and step to determine the type of the optical disk medium (column 33, lines 63-67; column 12, lines 49-54; column 9, lines 47-54; column 13, lines 19-21).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the means for and the step of determining the type of the optical disk medium taught by Kikuchi et al. into the video disc recorder and player

taught by Komoda et al. because of display purpose as suggested by Kikuchi et al. (column 40, lines 38-55).

The proposed combination of Komoda et al. and Kikuchi et al. does not teach changing the processing to generate and to record thumbnail data in association with the recording of the image on the optical disk media in accordance with the determined type of optical disk medium.

Nakajima et al. disclose a module to determine a type of said optical disk medium and to change the processing to generate and to record thumbnail data in association with the recording of the image in accordance with the determined type of optical disk medium (column 7, lines 40-45).

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the module to determine a type of said optical disk medium and to change the processing to generate and to record thumbnail data in association with the recording of the image in accordance with the determined type of optical disk medium disclosed by Nakajima into the apparatus and method taught by Komoda et al. and Kikuchi et al. in order to automatically label the disk without user's intervention, thus, to enhance its user interface.

Claims 2 and 5 recite the optical disk medium being of a write-once type; and when an operation for write processing termination is conducted as the particular operation, the string of thumbnail data is recorded.

See the teachings of Komoda et al. and Kikuchi et al. above.

Komoda et al. also teach the optical disk medium being of a write-one type (column 2, lines 10-13) and when an operation for write processing termination is conducted as the particular operation, the thumbnail data is recorded (column 4, lines 60-66).

Claim 11 recites the steps of: (1) generating, when it is determined that said optical disk medium is of a write-once type and when an operation for write processing termination is conducted as the particular operation, thumbnail data for the partial recording section; and (2) recording the thumbnail data generated by the generating step.

See the teachings of Komoda et al. above.

Komoda et al. also teach the steps of: (1) generating, when an operation for write processing termination is conducted as the particular operation, thumbnail data for the partial recording section (column 4, lines 39-53); and (2) recording the thumbnail data generated by the generating step (column 4, lines 51-53).

Komoda et al. do not teach the optical disk medium to be of write-once type.

See the teachings of Kikuchi et al. regarding to the optical disk medium to be of write-once type above.

Claim 12 recites the steps of: (1) generating, when an operation for REC processing is conducted as the particular operation, thumbnail data for the particular operation and separately keeping the thumbnail data as a string of thumbnail data; and (2) recording, when an operation for write processing termination is conducted as the

particular operation, the string of thumbnail data after the partial recording sections, the recording being conducted as an update operation.

See the teachings of Komoda et al. above.

Komoda et al. also teach the steps of: (1) generating, when an operation for REC processing is conducted as the particular operation, thumbnail data for the particular operation and separately keeping the thumbnail data (column 4, lines 60-66); and (2) recording, when an operation for write processing termination is conducted as the particular operation, the string of thumbnail data after the partial recording sections, the recording being conducted as an update operation (column 4, lines 60-66).

Komoda et al. do not teach the step of determining the optical disk medium being of write-once type and the concept of string of data.

See the teachings of Kikuchi et al. including the step of determining the optical disk medium being of a write-once type and the concept of string of data, above.

Claims 3, 6, 8, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Komoda et al. (US Patent 6,701,063), Kikuchi et al. (US Patent 6,553,180), and Nakajima et al. (US Patent 7,260,305) as discussed in claims 1-2, 4-5, 7, and 10-12 above, and further in view of Ohara et al. (US Patent 5,544,137).

Claim 8 recites upon determining that an optical disk medium is a write-once type; and when an operation for write processing termination is conducted as the particular operation, thumbnail data is generated for each of the string of partial recording sections; and recorded after the string of partial recording sections.

See the teachings of Komoda et al., Kikuchi et al., and Nakajima et al. above.

Komoda et al. also teach the optical disk medium being of a write-one type (column 2, lines 10-13) and when an operation for write processing termination is conducted as the particular operation, the thumbnail data is generated for each of the string of partial recording sections; and recorded after the partial recording section, which is the input video data (column 4, lines 39-53).

Claims 3, 6, and 9 recite the optical disk medium being of a write-once type; and each time an operation for REC processing is conducted as the particular operation, thumbnail data is generated for the particular operation and is separately kept as a string of thumbnail data; and when an operation for write processing termination is conducted as the particular operation, the string of thumbnail data is recorded.

See the teachings of Komoda et al., Kikuchi et al., and Nakajima et al. above.

Komoda et al. also teach the optical disk medium being of a write-one type (column 2, lines 10-13); and each time an operation for REC processing is conducted as the particular operation, thumbnail data is generated for the particular operation and is separately kept as thumbnail data (column 4, lines 60-66); and when an operation for write processing termination is conducted as the particular operation, the thumbnail data is recorded (column 4, lines 60-66).

The proposed combination of Komoda et al., Kikuchi et al., and Nakajima et al. does not disclose upon determining that an optical disk medium is a write-once type medium the processing is performed.

Ohara et al. disclose upon determining that an optical disk medium is a write-once type medium, appropriate processing is performed.

One of ordinary skill in the art at the time the invention was made would have been motivated to incorporate the concept that, upon determining that an optical disk medium is a write-once type medium the processing is performed as taught by Ohura et al. into the method taught by Komoda et al, Kikuchi et al., and Nakajima et al. to ensure the writing process is executable (for example, to prevent a user from writing to a CD-ROM). This feature will enhance the user-interface of the method or apparatus.

Therefore, the invention as a whole would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, absent of unexpected results to the contrary.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG Q. DANG whose telephone number is (571)270-1116. The examiner can normally be reached on IFT.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, THAI Q. TRAN can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HUNG Q DANG/
Examiner, Art Unit 2621

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621